This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) A method for reviewing voltage contrast defects on a semiconductor specimen comprising:

turning on an electron flood gun;

applying a surface charge to a semiconductor specimen by using the flood gun;

turning off the electron flood gun;

using an electron beam generator to direct an electron beam upon the surface of the specimen, wherein the electron beam causes secondary electrons to emanate from the specimen;

detecting the secondary electrons in order to locate voltage contrast defects; and

reviewing the located voltage contrast defects.

2. (original) A method as recited in claim 1 wherein the surface charge is applied to the entire surface of the specimen.

3. (original) A method as recited in claim 1 wherein the surface has a negative or positive charge.

4. (original) A method as recited in claim 1 wherein the operations of claim 1 are repeated such that during each iteration, voltage contrast defects in a new sub-region are detected and reviewed.

5. (original) A method as recited in claim 1 further comprising:

reapplying a surface charge to the semiconductor specimen using the flood gun when the charge on the specimen is determined to be insufficient for voltage contrast effects to manifest.

6. (original) A method as recited in claim 1 further comprising:

positioning a specimen charge electrode above the semiconductor specimen; and

while the flood gun is turned on, biasing the specimen charge electrode at a certain voltage level in order to obtain a desired charge amount on the semiconductor specimen.

7. (original) A method as recited in claim 6 wherein the specimen charge electrode is negatively biased whereby a negative charge is applied to the semiconductor specimen.

8. (original) A method as recited in claim 6 wherein the specimen charge electrode is positively biased whereby a positive charge is applied to the semiconductor specimen.

9. (original) A method as recited in claim 1 further comprising:

supporting the semiconductor specimen with a specimen stage, wherein the semiconductor specimen and the specimen stage are in electrical contact; and

biasing the specimen stage at a certain voltage level in order to obtain a desired surface charge amount on the semiconductor specimen.

10. (original) A method as recited in claim 9 wherein the specimen stage is positively biased whereby a negative charge is applied to the semiconductor specimen.

11. (original) A method as recited in claim 9 wherein the specimen stage is negatively biased whereby a positive charge is applied to the semiconductor specimen.

12. (original) A method as recited in claim 1 wherein the operation of reviewing the located voltage contrast defect involves energy dispersive x-ray analysis techniques or cross-sectioning tools.

13. (original) A method as recited in claim 1 wherein the electron beam generator produces an electron beam having a current level approximately within the range of 10-50 pico Amps.

14. (original) A method as recited in claim 13 further comprising:

detecting voltage contrast defects within features on the semiconductor specimen that have high aspect ratios.

15. (original) A method as recited in claim 1 wherein a scanning electron microscope inspection system is used for review.

Claims 16- 19 (cancelled)